



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

cn

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,471	11/08/2001	Robert Summers	MGNC-45c	1866
20986	7590	09/07/2004	EXAMINER	
LOUIS J BACHAND P O BOX 1508 LA CANADA, CA 910125508			KIM, PAUL D	
			ART UNIT	PAPER NUMBER
			3729	
DATE MAILED: 09/07/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/045,471	Applicant(s) SUMMERS ET AL.	
	Examiner Paul D Kim	Art Unit 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 12-19 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-10 is/are allowed.
- 6) ☐ Claim(s) 1-3,5 and 11 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is a response to the amendment filed on 7/6/2004.

Drawings

1. The drawings were received on 7/6/2004. These drawings are accepted.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coon (US PAT. 6,320,729) in view of Coon et al. (US PAT. 6,268,981).

Coon teaches a process of assembling a loan beam and flexure comprising steps of: juxtaposing at a common plane the load beam (14) and the flexure (12, equivalent with a flexible circuit); and intersecting a first plural locator structures (22,24) on the load beam with a second plural locator structures (52,54) on the flexure across the common plane (as best shown in Figs. 6A-6E) to locate the loan beam and flexure in the predetermined alignment (see also. Col. 6, line 51 to col. 8, line 37).

As per claim 2 the first plural locator structures are extending through the common plane and receiving the second plural locator structures respectively as best shown in Figs. 6A-6E.

Art Unit: 3729

As per claim 3 the load beam and flexure are contacted and fixed in location of 58 as shown in Fig. 5D-5E.

As per claim 5 the second plural locator structures are located at the suspension proximate end as shown in Fig. 1.

However, Coon does not teach the flexure formed of flexible circuit comprising a laminate of trace conductors and an insulative film. Coon et al. teach a suspension structure including a flexible circuit (18, flexure as shown in Fig. 3) comprising a laminate of trace conductors (26) insulated with the insulative film (24) as shown in Fig. 3 for electrically connecting between the magnetic head slider to the flexible circuit. (see also col. 4, line 47 to col. 5, line 38). Therefore, it would also have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the flexure of Coon by a flexure with the laminate of trace conductors insulated with the insulative film as taught by Coon et al. for the purpose of electrically connecting between the magnetic head slider to the flexible circuit to produce the magnetic head assembly.

As per claim 11 Coon et al. teach that a portion (46) of a metal (22) layer is attached to the load beam and spaced from the first plural locator structure as shown in Fig. 3. The portion of the metal layer is spaced apart from the load beam.

Allowable Subject Matter

4. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 6-10 are allowed.

6. This application contains claims 12-19 drawn to an invention nonelected with traverse filed on 7/6/2004. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Response to Arguments

7. Applicant's arguments filed 7/6/2004 have been fully considered but they are not persuasive. Applicant argues that both Coon and Coon et al. do not teach an alignment of a both Coon and Coon et al. with plural locator structures. Examiner traverses the argument. Coon teaches the first plural locator structures (22,24 shown as vias) on the load beam and the second plural locator structures (52,54) on the flexure. The both first plural locator structures and the second plural locator structures are intersecting in predetermined alignment. If the first plural locator structures and the second plural locator structures are not aligned, there could be no intersection between the first plural locator structures and the second plural locator structures. Applicant also argues that Coon et al. shows there is no connection between the flexure and the load beam. Examiner traverses the argument. There is no such a limitation for connecting the

Art Unit: 3729

suspension load beam with the flexible circuit in the claimed invention. Both surfaces of the suspension load beam and the flexure formed of flexible circuit of Coon et al. are contacted (intersected or overlapped) as shown in Fig. 3.

Coon teaches all of the limitations except the flexure formed of flexible circuit comprising a laminate of trace conductors and an insulative film. Coon et al. teach a suspension structure including a flexible circuit comprising a laminate of trace conductors insulated with the insulative film as shown in Fig. 3 for electrically connecting between the magnetic head slider to the flexible circuit. It would be obvious to a person having ordinary skill in the art to modify the flexure of Coon by a flexure with the laminate of trace conductors insulated with the insulative film as taught by Coon et al. for the purpose of electrically connecting between the magnetic head slider to the flexible circuit to produce the magnetic head assembly.

Note: intersect

1. To cut across or overlap each other: *circles intersecting on a graph.*¹

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

¹ *The American Heritage® Dictionary of the English Language, Third Edition* copyright © 1992 by Houghton Mifflin Company. Electronic version licensed from INSO Corporation; further reproduction and distribution restricted in accordance with the Copyright Law of the United States. All rights reserved.


Art Unit: 3729

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul D Kim whose telephone number is 703-308-8356. The examiner can normally be reached on Tuesday-Friday between 8:00 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

pdk



A. DEXTER TUGBANG
PRIMARY EXAMINER